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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,954	09/29/2006	Shigeo Kamamoto	AI-433NP	1873
23995	7590	01/23/2009	EXAMINER	
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			AUNG, SAN M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,954	Applicant(s) KAMAMOTO ET AL.	
	Examiner SAN AUNG	Art Unit 3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/29/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is a First Office Action Non-Final rejection on the merits.
Claims 1-18, as originally filed, are currently pending and have been considered below.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-7, 9-18** are rejected under 35 U.S.C. 102 (b) as being anticipated by Baumann et al. (Pub. No.: US 2002/0068654 A1).

As per claim 1, Baumann et al. discloses Plate-Link Chain comprising:

a plurality of link units (Attached figure) aligned in a traveling direction of chain;
and

a plurality of connecting members (3, 13) that link the plurality of link units to one another (Figures 3 and 4), wherein:

each of the link units includes a plurality of links (11, 12) aligned in a width direction of chain that is orthogonal to the traveling direction of chain (Figures 3 and 4);

each of the connecting members includes first and second power transmission members (Attached figure);

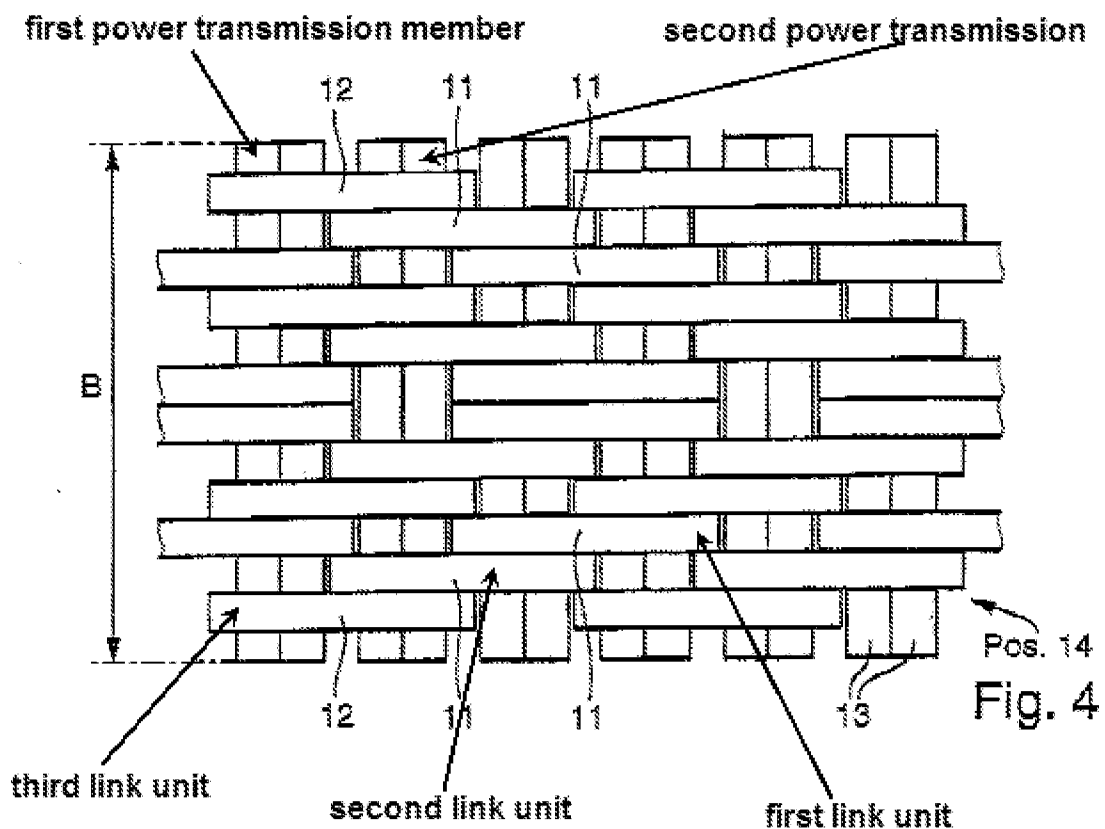
either one of the first and second power transmission members moves relatively with respect to the other power transmission member accompanying bending of the

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chain while coming into contact with the other power transmission member in a contact state including at least one of rolling contact and sliding contact (Paragraph 52); and

the number of the links in each of the link units is equal and an even number (Figure 4).

As per claim 2, Baumann et al. discloses at least one of the link units includes two links that are disposed to be stacked on each other so as to come into contact with each other (Figures 3, 4 and also see attached figure).



As per claim 3, Baumann et al. discloses at least one of the link units includes two links that are disposed to be stacked on each other so as to come into contact with each other at a center position of the chain in the width direction of chain (Paragraph 56, Figure 3 and 4).

As per claim 4, Baumann et al. discloses at least one of the link units includes two pairs of links disposed, respectively, at a pair of end portions of the chain in the width direction of chain, and each of the pairs of links are stacked on each other so as to come into contact with each other (Figures 3 and 4).

As per claim 5, Baumann et al. discloses the links of at least one of the link units are disposed symmetrically about a center position of the chain in the width direction of chain (Figure 4).

As per claim 6, Baumann et al. discloses each of the links of each of the link units includes first and second through-holes (4, Figure 1 and 16, Figure 2) for corresponding connecting members to be inserted therein; and

the first and second through-holes in each of the links are aligned in the traveling direction of chain (Figures 1 and 2).

As per claim 7, Baumann et al. discloses a corresponding first power transmission member is fit into the first through-hole in each of the links in a manner so as to enable relative movements and a corresponding second power transmission member is fit therein in a manner so as to inhibit relative movements (Paragraph 59, Figure 2); and

the corresponding second power transmission member is fit into the second through-hole in each of the links in a manner so as to enable relative movements and the corresponding first power transmission member is fit therein in a manner so as to inhibit relative movements (Figures 1 and 2).

As per claim 9, Baumann et al. discloses movement trajectory of a contact point of the first and second power transmission members of each of the connecting members shapes an involute curve (Figure 5).

As per claims 10, Baumann et al. discloses (Figure 5) a pair of pulleys each having a pair of circular conical sheave surfaces (24, 25, 26 and 27) that opposes each other,

wherein power is transmitted between the pair of pulleys via the power transmission chain (32) according to any one of claim 1.

Claims 11-18 recites the same limitation of claim 10 and are therefore rejected under the same rational.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

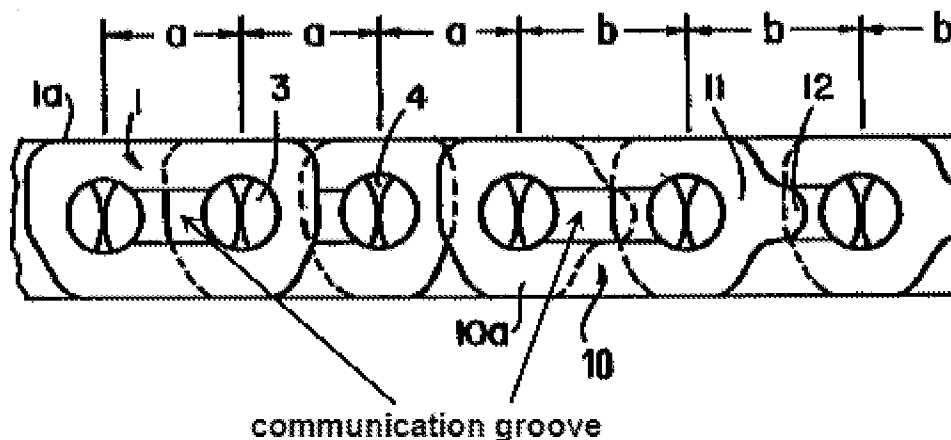
4. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Baumann et al. (Pub. No.: US 2002/0068654 A1) as applied to claim 6 above, and further in view of Wolf (US Patent 5,427,583).

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As per claim 8, Baumann et al. discloses all the structural elements of the claimed invention but fails to explicitly disclose each of the links of each of the link units includes a communication groove that allows the first and second through-holes to communicate with each other.

Wolf discloses Low-Noise, Triple Side Bar Sprocket Chain comprising the link plates and each of the links of each of the link units includes a communication groove that allows the first and second through-holes to communicate with each other (Figure 1 and attached figure).

It would have been obvious to one ordinary skill in the art at the time the invention was made to modify the chain link of the Baumann et al. to include the link which has a communication groove as taught by Wolf in order to get wider range of the chain transversely of the running direction.



Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The reference Oberle et al. (Pub. No.: US 2005/0209035 A1) discloses Method for Optimizing Plates of a Plate Link Chain, and Plate for a Plate Link Chain with similar link with groove features.

The reference Friedmann (US Patent 6,299,559 B1) discloses Transmission Chain with similar link arrangement features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAN AUNG whose telephone number is (571)270-5792. The examiner can normally be reached on Mon-to- Fri 7:30 am- to 5:00 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

San M Aung

/Robert A. Siconolfi/
Supervisory Patent Examiner, Art
Unit 3657